

AMENDMENTS TO THE CLAIMS

1. (Original) A method of reading data from a memory array comprising:

transferring data from a memory module onto an input/output signal line; and

sensing the data based on a capacitance of said input/output signal line.

2. (Original) The method of claim 1 further comprising delaying the sensing of the data based on the capacitance of said input/output signal line.

3. (Original) The method of claim 2, wherein a delay for an input/output signal line with a capacitance greater than a threshold is greater than a delay for an input/output signal line with a capacitance less than the threshold.

4. (Original) The method of claim 3, wherein multiple sensing of said less capacitive input/output signal lines is increased.

5. (Original) The method of claim 1 further comprising the act of shutting off a control signal controlling a sense amplifier that receives a signal from a low capacitance input/output signal line in a time less than a time for shutting off a high capacitance input/output signal line.

6. (Original) A column output delay circuit for a memory device comprising:

a first delay device, said first delay device delaying a column enable signal for a first period of time; and

a second delay device, said second delay device delaying a column enable signal for a second period of time.

7. (Original) The circuit of claim 6, wherein said first delay device delays a sensing operation on an input/output signal line having less capacitance, and an accumulation of said first and second delay device delays a sensing operation on an input/output signal line having greater capacitance.

8. (Original) The circuit of claim 6 further comprising a first column enable signal produced by said first delay device, and a second column enable signal produced by a combination of said first and second delay device.

9. (Original) A memory device comprising:

a memory array;

a datapath coupled to said memory array by input/output signal lines; and

a column output delay circuit, said circuit coupled to sense amplifiers in said datapath for controlling, based on a capacitance of a particular input/output signal line, when the particular input/output signal line is sensed by said sense amplifiers.

10. (Original) The device of claim 9 further comprising:

output data pads for transmitting data from said memory array;
and

combinatorial logic for determining which sense amplifier sends
data to said output pads.

11. (Original) The device of claim 9, wherein said column output delay circuit comprises a first delay device that delays a sensing operation on an input/output signal line of a first capacitance, and a second delay device wherein an accumulation of said first and second delay device delays a sensing operation on an input/output signal line having a second capacitance greater than said first capacitance.

12. (Original) The device of claim 11, wherein said column output delay circuit further comprises a first column enable signal produced by said first delay device, and a second column enable signal produced by a combination of said first and second delay device.

13. (Original) The device of claim 12, wherein said first and second column enable signals control said sense amplifiers.

14. (Original) A processor system comprising:

a processor; and

a memory device, said memory device comprising:

a memory array,

a datapath coupled to said memory array by input/output signal lines, and

a column output delay circuit, said circuit coupled to sense amplifiers in said datapath for controlling, based on a capacitance of a particular input/output signal line, when the particular input/output signal line is sensed by said sense amplifiers.

15. (Original) The system of claim 14, wherein said column output delay circuit comprises a first delay device that delays a sensing operation on an input/output signal line having a first capacitance, and a second delay device wherein an accumulation of said first and second delay device delays a sensing operation on an input/output signal line having second capacitance which is greater than said first capacitance.

16. (Original) The system of claim 15, wherein said column output delay circuit further comprises a first column enable signal produced by said first delay device, and a second column enable signal produced by a combination of said first and second delay device.

17. (Original) The system of claim 16, wherein said first and second column enable signals control said sense amplifiers.